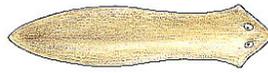


# Stream Insects and Crustaceans ID Card

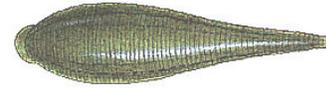
Lines under picture indicate the relative size of organisms



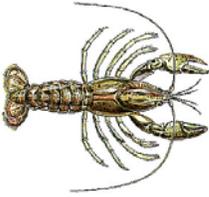
**Aquatic Worm:**  
**Class Oligochaeta**  
 $\frac{1}{4}$ " - 2", can be very tiny;  
thin, wormlike body, tolerant of  
impairment



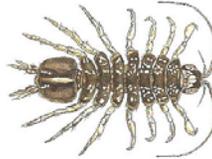
**Flat Worm:**  
**Family Planaridae**  
Up to  $\frac{1}{4}$ ", soft body,  
may have distinct head with  
eyespots, tolerant of impairment



**Leech:**  
**Order Hirudinea**  
 $\frac{1}{4}$ " - 2", segmented body,  
suction cups on both ends,  
tolerant of impairment



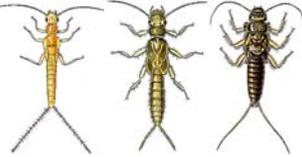
**Crayfish: Order Decapoda**  
Up to 6", 2 large claws, 8 legs, resembles  
a small lobster, somewhat tolerant of  
impairment



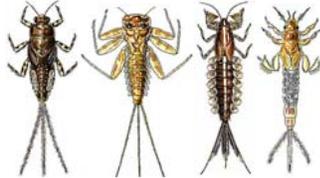
**Sowbug: Order Isopoda**  
 $\frac{1}{4}$ " -  $\frac{3}{4}$ ", gray oblong body wider  
than it is high, more than 6  
legs, long antennae, somewhat  
tolerant of impairment



**Scud: Order Amphipoda**  
 $\frac{1}{4}$ ", white to gray, body  
higher than it is wide,  
swims sideways, more than  
6 legs, resembles small  
shrimp, somewhat tolerant  
of impairment



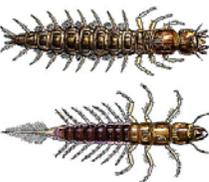
**Stonefly: Order Plecoptera**  
 $\frac{1}{2}$ " - 1  $\frac{1}{2}$ ", 6 legs with hooked  
tips, antennae, 2 hair-like tails,  
no gills on abdomen, very  
intolerant of impairment



**Mayfly:**  
**Order Ephemeroptera**  
 $\frac{1}{4}$ " - 1", plate-like or feathery gills  
on abdomen, 6 hooked legs, 2 or 3  
long hair-like tails, tails may be  
webbed together, very intolerant  
of impairment



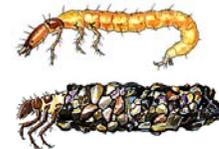
**Dragonfly and Damselfly:**  
**Order Odonata**  
 $\frac{1}{2}$ " - 2", large eyes, 6 hooked legs,  
large protracting lower jaw, 3  
broad oar-shaped tails OR wide  
oval to round abdomen, somewhat  
tolerant of impairment



**Hellgrammite, Fishfly, and Alderfly:**  
**Order Megaloptera**  
 $\frac{3}{4}$ " - 4", 6 legs, large pinching jaws, 8  
pairs of feelers along abdomen, 2 hooks  
on tail end OR 1 single spiky tail,  
somewhat tolerant of impairment



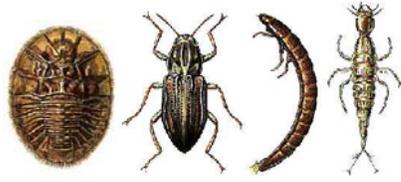
**Common Netspinners:**  
**Family Hydropsychidae**  
Up to  $\frac{3}{4}$ ", 6 hooked legs on  
upper 1/3 of body, 2 hooks at  
back end, underside of  
abdomen with white tufts of  
gills, somewhat tolerant of  
impairment



**Most Caddisfly:**  
**Order Trichoptera**  
Up to 1", 6 hooked legs on  
upper 1/3 of body, may be in  
stick, rock or leaf case, no  
gill tufts on abdomen,  
intolerant of impairment

# Stream Insects and Crustaceans ID Card

Lines under picture indicate the relative size of organisms



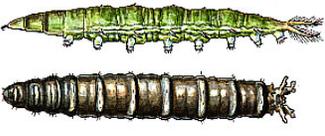
**Beetles: Order Coleoptera**  
 $\frac{1}{4}$ " - 1", disk-like oval body with 6 small legs and gill tufts on underside OR small black beetle crawling on streambed OR comma-like brown "crunchy" body with 6 legs on upper 1/3 and possibly gill tuft on back end, OR (miscellaneous body form - rare), somewhat tolerant of impairment



**Midges:**  
**Family Chironomidae**  
 Up to  $\frac{1}{4}$ ", distinct head, worm-like segmented body, 2 leg-like projections on each side, often whitish to clear, occasionally bright red, tolerant of impairment



**Black Fly: Family Simuliidae**  
 Up to  $\frac{1}{4}$ ", end of body wider (like bowling pin), distinctive head, sucker on end, tolerant of impairment



**Most True Flies:**  
**Order Diptera**  
 $\frac{1}{4}$ " - 2", bodies plump and maggot-like, may have caterpillar like "legs" along body, may have lobes or conical tails on end, tolerant of impairment



**Gilled Snails:**  
**Class Gastropoda**  
 Up to  $\frac{3}{4}$ ", shell opening covered by a thin plate called an operculum, with helix pointed up shell opens to the right, intolerant of impairment

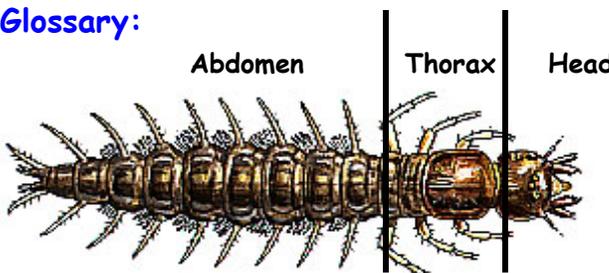


**Lunged Snails:**  
**Class Gastropoda**  
 Up to  $\frac{3}{4}$ ", no operculum, with helix pointed up shell opens to the left, tolerant of impairment



**Clams:**  
**Class Bivalvia**  
 Up to  $\frac{3}{4}$ ", fleshy body enclosed between two clamped together shells (if clam is alive, shells cannot be pried apart without harming clam), somewhat tolerant of impairment

**Glossary:**



**Tails:** There are many different kinds of macroinvertebrate tails. The thin thread-like tails found on stoneflies and mayflies are called cerci. The oar-shaped tails found on a damselfly are not really tails - they are actually gills called caudal lamellae!